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ABSTRACT

THE EXTENT TO WHICH SMOKERS AS COMPARED TO NON-SMOKERS RECOGNIZE THEIR FAILURE TO ACHIEVE WAS STUDIED. THE SUBJECTS WERE 80 NINTH GRADE PUPILS, HALF OF WHOM SMOKED. A NINE POINT SELF-ANCHORING EXPECTATION SCALE WAS DEVELOPED TO DETERMINE HOW CLOSELY THE SUBJECTS CAME TO MEETING THE PERCEIVED EXPECTATIONS OF THEIR PARENTS, THEIR SCHOOL, THEIR PEERS, AND THEMSELVES. BOTH MALE AND FEMALE SMOKERS DID NOT FEEL THAT THEY CAME AS CLOSE TO MEETING THEIR PARENTS AND SCHOOLS EXPECTATIONS AS DID THE NON-SMOKERS. THE TWO GROUPS HOWEVER FAILED TO SHOW ANY SIGNIFICANT DIFFERENCES IN PERCEIVING THEMSELVES AS LIVING UP TO THE EXPECTATIONS OF THEIR PEERS AND THEMSELVES. ASSUMING THAT SMOKING IS A COMPENSATORY ACTION BY YOUNGSTERS WHO DO NOT SUCCEED ACADEMICALLY AND SOCIALLY, IT IS RECOMMENDED THAT EDUCATORS APPROACH THE CAUSE OF THE PROBLEM, WHICH IS FAILURE, RATHER THAN SMOKING WHICH IS THE EFFECT. IF IT WERE POSSIBLE TO DOWNPLAY SMOKING AND AT THE SAME TIME BROADEN THE POTENTIAL FOR ACHIEVEMENT TO ENABLE MORE STUDENTS TO INCREASE THEIR FEELINGS OF SELF-WORTH, SMOKING MIGHT BECOME A LESS NECESSARY CRUTCH. (RSM)

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Adolescent Cigarette Smoking as Compensatory Behavior*

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To what extent does a youngster's failure to achieve, in areas he considers important, contribute to the probability that he will be a cigarette smoker? Horn,[1] Morrison and Medovy,[2] Barrett,[3] Salber, [4] Ward,[5] Bajda,[6] Monk,[7] Michelson[8] and Creswell[9] have all presented data which suggests that the adolescent cigarette smoker is likely to be less successful, in a variety of ways, than his non-smoking counterpart. Horn has suggested that for the smoker there is a "syndrome of intercorrelated factors which seem to have in common the failure to achieve peer-group status or satisfaction."[10] Horn illustrated the components of this syndrome by noting that youngsters who had fallen behind their age equals in school, who did not participate in extra curricular activities and who took less demanding courses of study tended to be cigarette smokers. These conclusions were derived from descriptive data collected in large scale surveys and did not explore the extent to which the smokers themselves recognized their apparent failures.

The present report deals with an attempt to determine the extent to which smokers, as compared to non-smokers, actually recognized

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their failures to achieve. It was assumed that if adolescents realistically perceived their failure to achieve, relative to the expectations of specific reference groups, there would exist a potential motivating force for behavior change.

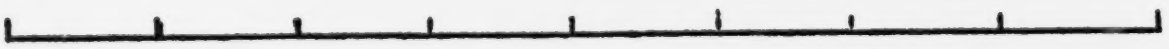
One aspect of an intensive nine month participant observation study of eighty ninth grade subjects; twenty female smokers, twenty female non-smokers, twenty male smokers, twenty male non-smokers, sought to further describe Horn's suggested compensatory syndrome.

Methodology

Based on the work of Kilpatrick and Cantril[11] a nine-point self-anchoring expectation scale was developed to ascertain how closely the subjects came to meeting the perceived expectation of specific reference groups. A self anchoring scale is a non-numeric scale on which each individual subject determined the nature of the two extremeties of the scale. In this research the subjects determined the high point of the scale in terms of their perceptions of the expectations of important reference groups. The low point of the scale represented the opposite of these expectations (Figure 1). The selected reference groups were: their parents, their school, their friends, and their selves.

FIGURE 1

Self-Anchoring Expectation Scale



At the beginning of one of many semi-formal interviews with each subject the meaning of the word expectation was discussed. Once the investigator was satisfied that both he and the subject agreed on the

meaning, the discussion turned to the self-anchoring expectation scale. It was explained that the investigator wanted to spend some time discussing the expectations that certain people held for them. The self-anchoring scale was then introduced and the following explanation given:

> Now, here we have a number of measuring scales. Let us imagine that we are going to use this first one to help us talk about the sort of things you think your parents expect of you. I suppose we would agree that they do hold certain expectations for you - they want you to be a certain type of person. Let's talk about the sort of person that you think they want you to be - at the moment - today - tomorrow - this week. Let's not worry about the future too much. Now, looking at this top scale - let us say that this point (pointing to the right end of the scale) represents your parents' expectations. In other words, if you were exactly as you think your parents expect you to be, you would be here. What sort of a person would that be? Can you describe such a person to me?
>
> Now let's look at the other end of the scale (pointing to the left end) and say this represents just the opposite of what your parents expect. Can you describe this person for me?

When the description was completed, the subject was asked where on the scale he felt he belonged. Just how close did he come to meeting the expectations as he had described them. If the subject did not place himself at the extreme right of the scale, he was asked:

> What would you have to do to bring yourself up to the top - what would you have to change to meet your parents' expectations?

At this point it was expected that the subjects would respond in terms of the qualities which they had detailed in describing the expectations. If they didn't respond in this manner, discussion was then initiated to determine why not.

This procedure was repeated for the school's, their peers', and

their own personal expectations.

For scoring purposes numbers were assigned to each point on the scale, one representing the lowest point and nine representing the highest point. Twenty subjects repeated this rating procedure at a later time (one to seven days) to determine the reliability of the technique. The resulting coefficient of correlation was .92. Relationships between smoking behavior and self-ratings on the self-anchoring expectation scale were tested by means of a phi coefficient[12] derived from an adjusted chi square median test.[13, 14] In addition, an F test for homogeneity of variance was conducted to determine the degree of conformity within each smoking classification.[15]

Results

Subjects perceived the expectations of their parents in four main ways. They were expected "to get good grades" (44 subjects): "be obedient, polite and well behaved" (21 subjects); "pick nice kids for friends" (7 subjects); and "stay out of trouble" (6 subjects). Two subjects mentioned "dressing properly and learning household skills."

Both male and female smokers placed themselves significantly lower on the scale than did their non-smoking classmates (Table 1A). Smokers did not feel they came as close to meeting their parents' expectations as did non-smokers. The smoking and non-smoking boys showed equal variance in the degree to which they met parental expectations, but the female smokers were significantly more variable in meeting parental expectations than the female non-smokers. The female smokers varied over the whole scale, while the non-smokers concentrated about the combined median.

Forty-eight subjects said the school's major expectation was for

TABLE 1

Self-Anchoring Expectation Scale Scores and Smoking Behavior

	Male			Female		
	Smokers		Non-Smokers	Smokers		Non-Smokers
A: Parental Expectations						
Above Median	6.14		13.86	3.73		16.27
Below Median	13.86		6.14	16.27		3.73
Median		6.21			6.77	
Phi Coefficient		.335			.577	
P		<.05			<.01	
Homogeneity of Variance (F.P)	1.329		N.S.	5.886		<.02
B: School Expectations						
Above Median	4.00		16.00	4.86		15.14
Below Median	16.00		4.00	15.14		4.86
Median		5.90			6.04	
Phi Coefficient		.478			.463	
P		<.04			<.01	
Homogeneity of Variance (F.P)	2.418		<.10	2.785		<.10
C: Friends' Expectations						
Above Median	11.50		8.50	9.50		10.50
Below Median	8.50		11.50	10.50		9.50
Median		6.95			8.08	
Phi Coefficient		.100			.00	
P		<.90			1.0	
Homegeneity of Variance (F.P)	2.041		N.S.	1.422		N.S.
D: Personal Expectations						
Above Median	8.00		12.00	10.00		10.00
Below Median	12.00		8.00	10.00		10.00
Median		6.5			6.67	
Phi Coefficient		.150			.00	
P		<.40			1.0	
Homogeneity of Variance (F.P)	2.906		<.10	3.037		<.02

the students to "obey the rules and not cause trouble" (Table 1B). Other expectations included "getting good grades" (23 subjects) and "being involved in extra curricular activities" (5 students). The remaining four subjects each described different expectations. Again, male and female smokers did not see themselves as measuring up to the expectations which they had described. Both male and female smokers showed significantly greater variability in their responses than non-smokers.

The expectations of peers, or friends, were divided into two distinct categories. These categories were "going with the crowd and doing things together" (46 subjects), "being honest, cooperative and loyal" (34 subjects). Smokers and non-smokers failed to show any significant differences for either male or female groups (Table 1C). There was no significant difference between the variances of the smokers and non-smokers for either males or females.

The personal expectations of the subjects showed no consistent pattern. While male and female smokers' scores varied more than non-smokers', neither showed a significant difference in the achievement of expectations (Table 1D).

This characteristic of smokers to feel they were not meeting the expectations of their parents and school is open to two possible explanations. The smokers could have misinterpreted the expectations and, therefore, felt they were failing, or they could have felt they were failing to meet expectations that they had perceived accurately; whichever the case this feeling of failure could lead to serious emotional disorder. The act of smoking may, as Horn suggests, be a form of compensation providing a feeling of achievement and needed

recognition. Subjects had established the high end of this scale in terms of their own perceptions of these expectations; therefore, they did recognize that they were not measuring up to their perceptions of these expectations.

To further explore the nature of this characteristic of smokers to see themselves as failing, additional aspects of the subjects' behavior were examined.

Subjects were asked if they were satisfied with being their present age. More smokers than non-smokers indicated that they wished to be older (Table 2). The difference between smokers and non-smokers was significant for girls but not for boys, although the trend was similar. It is difficult to say whether wanting to be older indicated failure at the present age, but it did suggest dissatisfaction with their present status.

TABLE 2

Subjects Wishing to be Older

	Males		Females	
	Smokers	Non-Smokers	Smokers	Non-Smokers
Satisfied with present age	7	12	6	17
Wish to be older	13	8	14	3
Chi Square	1.602		10.237	
P	$<.30$		$<.01$	

Among the study subjects, smokers were more likely to fail course work, be tardy to school, and be truant or suspended. Conversely, non-smokers were more likely to be listed on the academic honor roll and be active in extra curricular activities (Table 3).

TABLE 3

Comparison of School Record Data

	Males		Females	
	Smokers	Non-Smokers	Smokers	Non-Smokers
Failing course work	11	5	6	0
Tardiness	8	5	4	0
Truancy	7	2	6	0
Suspension	5	0	5	0
Honor Roll	0	4	1	8
Extra Curricular Activities	3	10	3	9

A comparison of grade point averages showed that non-smokers achieved higher marks in school than smokers (Table 4A and B). The difference between smokers and non-smokers was significant for boys and girls and actually increased for boys between the fall and spring grading periods. The intelligence quotients maintained in each student's permanent record indicated that male smokers and non-smokers were not significantly different (Table 4C). However, female non-smokers had significantly higher IQ scores than smokers.

TABLE 4

Grade Point Averages and Intelligence Quotients

	Males		Females	
	Smokers	Non-Smokers	Smokers	Non-Smokers
A: Fall G.P.A.				
Above Median	6.33	13.67	3.50	16.50
Below Median	13.67	6.33	16.50	3.50
Median	1.75		2.25	
Chi Square	4.036		14.400	
P	<.05		<.001	
B: Spring G.P.A.				
Above Median	2.75	17.25	2.75	17.25
Below Median	17.25	2.75	17.25	2.75
Median	2.25		2.25	
Chi Square	18.224		18.224	
P	<.001		<.001	
C: I.Q.				
Above Median	8.00	12.00	6.00	14.00
Below Median	12.00	8.00	14.00	6.00
Median	102.50		106.00	
Chi Square	.900		.900	
P	<.50		<.05	

Summary and Implications

Both male and female smokers perceived themselves as failing to meet the expectations of their parents and school. On the other hand, non-smokers perceived themselves as more nearly meeting these expectations. Two possible alternatives were suggested to interpret these results. 1) The smokers could actually be failing to measure up to the expectations of their parents and school, as well as their non-smoking classmates, or 2) they could be mininterpreting the expectations of their parents and school. Whichever the case, the important point is that smokers personally felt they were not doing as well as non-smokers.

When these results were considered along with smokers' desires to be older, lower GPA's,and disproportionate involvement in school discipline issues, their perceptions of failing seemed accurate.

Considering now, only the dimensions of this study that relate to the school, it can be noted that if it is the students' failure to achieve that has caused them to turn away from the school and exhibit behavior which is either passively detached or openly hostile, then the traditional educational approach will not succeed.

However, assuming that the tenents of functionalism apply to cigarette smoking, and that it is a compensatory action by youngsters who do not succeed academically and socially, educators can then approach the cause of the problem (failure) rather than the effect (smoking). If it were possible to down-play the smoking act and at the same time broaden the potential for achievement, so that more students could develop a feeling of self-worth, it might be found that smoking was a less necessary crutch.

For example, if teachers were less concerned about judging students by their IQ's, grades, and overt behaviors, they might discover that failing students have unique qualities. If curriculum offerings were more meaningful, the possibility of discovering areas of potential achievement and capturing the imagination of these "tuned out" students would be increased.

These conclusions depend on the fact that students who are smokers and who are failing, still hold as significant the standards of the school. The present data indicates that they can describe the generally accepted schools expectations. In addition, McKennell and Bynner[16] have illustrated, with English school boys, that while their sample of smokers showed characteristic low achievement, this was not accompanied by a tendency to reject the values associated with educational success. Hence, we can assume that youngsters who fail would like to do otherwise.

In considering the nature of this compensatory syndrome, it should also be recognized that the school's continued broad, and often unco-ordinated involvement in anti-smoking programs may tend to reinforce the value of smoking as a means of achieving status in what has been loosely called the "subculture of youth."

In other words, failure on the part of the educational system, which dominates a great proportion of a young person's early life, to adequately provide alternative modes of achieving success with its associated status may be encouraging cigarette smoking as an alternative status behavior. Similarly, poorly planned anti-smoking programs may add to the value of smoking as a compensatory action that, at least in the eyes of the youth, provides reinforcement for continued smoking.

On the basis of this small sample, and the increasing interest in this topic, it is recommended that new efforts be made to define the social parameters of behavior patterns that fall within our areas of interest. The counter productive gratification behaviors are complex, to say the least, but must be understood in their social context and solutions must be devised accordingly.

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